

mmol). The mixture was stirred for 3 h at 20 to 25°C and concentrated under reduced pressure. The product was extracted with methylene chloride (2 x 3 ml) and pyridine (0.26 ml, 3.2 mmol, 10 eq) was added followed by acetic anhydride (0.15 ml, 1.6 mmol, 5 eq). The mixture was stirred at 20 to 25°C for 2 h and methylene chloride (40 ml) was added. The solution was washed with hydrochloric acid (1%, 3 x 10 ml), saturated aqueous sodium chloride (3 x 10 ml), water (3 x 10 ml), and dried over sodium sulfate. Silica gel chromatography (methanol/methylene chloride eleuent) gave Compound X, wherein $R^1 = 4-(1,1\text{-dioxido-3-thietanyl})\text{-3-fluorophenyl}$, $R^5 = \text{acetyl}$ (0.085 g, 75.0%):silica gel TLC $R_f = 0.4$ (5% methanol/methylene chloride); $^1\text{H NMR}$ (400 MHz, CDCl_3) 2.03 (s, 3 H), 3.66 (m, 2 H), 3.80 (t, $J = 7$ Hz, 1 H), 3.98 (t, $J = 9$ Hz, 1 H), 4.06 (t, $J = 9$ Hz, 1 H), 4.304 (t, $J = 8$ Hz, 2 H), 4.50 (t, $J = 14$ Hz, 2 H), 4.80 (m, 1 H), 6.07 (s, 1 H), 7.21 (d, $J = 9$ Hz, 1 H), 7.37 (t, $J = 9$ Hz, 1 H), 7.54 (d, $J = 13$ Hz, 1 H): MS (ESI+) m/z (357, $\text{M}+\text{H}$)⁺.

It will be apparent to those skilled in the art that various modifications and variations can be made in the present invention without departing from the scope or spirit of the invention. Other embodiments of the invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. It is intended that the specification and examples be considered as exemplary only, with a true scope and spirit of the invention being indicated by the following claims.